



MISSOURI DEPARTMENT OF TRANSPORTATION
MATERIALS ENGINEERING
Jefferson City, Missouri

Test Method
MoDOT T10
SPECIFIC GRAVITY COARSE AGGREGATES
FOR BITUMINOUS MIXTURES

1.0 SCOPE

1.1 This method covers the procedure for determining the specific gravity of coarse aggregate for use in the design of bituminous mixtures.

2.0 PROCEDURES

2.1 Determine the Bulk Specific Gravity and Apparent Specific Gravity of the plus #4 material in accordance with AASHTO T85. Determine the Specific Gravity of the minus #4 material in accordance with MoDOT T37.

3.0 CALCULATIONS

$$\text{Specific Gravity of plus \#4 Material} = \frac{A + B}{2}$$

WHERE:

A = Apparent Specific Gravity

B = Bulk Specific Gravity

THEN:

$$\text{Specific Gravity of coarse aggregate} = \frac{100}{\frac{P_1}{G_1} + \frac{P_2}{G_2}}$$

WHERE:

P₁ = Percent of minus #4 material.

P₂ = Percent of plus #4 material.

G₁ = Specific Gravity of minus #4 material.

G₂ = Specific Gravity of plus #4 material.